

A NEW VARIETY OF *ERIOGONUM NUDUM* (POLYGONACEAE:
ERIOGONOIDEAE) FROM THE SOUTHERN SIERRA NEVADA

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ABSTRACT

A new variety of *Eriogonum nudum* Douglas ex Benth. (subg. *Eucyla*), the var. *regirivum*, is proposed for a plant found on limestone slopes along Kings River in Fresno Co.. It may be recognized by its strict habit, densely tomentose stems and branches, and pubescent creamy white flowers arranged in 3-6 congested involucre disposed at the upper nodes.

KEY WORDS: Polygonaceae, taxonomy, *Eriogonum*, California.

INTRODUCTION

Soon after Munz and Reveal (Munz 1968) revised the California species of *Eriogonum* it became obvious that additional expression within *E. nudum* Douglas ex Benth. deserved recognition. In 1970, two narrowly endemic varieties were added to the species, the var. *decurrens* (S. Stokes) Bowerman of Santa Cruz Co. and the var. *murinum* Rev. of Tulare Co. During this latter review, an additional variant was noted from Fresno Co. that seemed worthy of recognition, but was then known only from a single collection gathered at a site that was extirpated by the construction of Pine Flat Reservoir. Additional collections of the taxon were seen during herbarium visits in the 1970s, but all seemed to be from the same general area covered by the Reservoir. Various collectors interested in the southern Sierra Nevada were told of the variant but none was able to find the plant. In 1987, James R. Shevock told the senior author that he was aware of a new variety of *Eriogonum nudum* in the southern Sierra Nevada which flowered late in the year, was markedly distinct, but one he had not yet been able to collect. Interestingly, this proved to be the same plant that the junior authors were examining in the field. Specimens were gathered in 1988 for a type collection and the taxon is now established.

TAXONOMY

Eriogonum nudum Douglas ex Benth. var. *regirivum* Rev. & J. Stebbins, var. nov. — TYPE: UNITED STATES. CALIFORNIA: Fresno Co.: 0.75 mi E of road's end, Kings River Canyon, Sierra National Forest, T12S, R27E, NW¼S26, 487 m elev, 17 Sep 1988, *Stebbins et al.* 88-106 (holotype: US!; isotypes: BM, CAS, FSC, MARY, MO, NY, RM, RSA, UC!).

A var. *decurrens* foliis basi et var. *oblongifolium* floribus dense pubescens et foliis longior differt.

Plants tall strict herbaceous perennials (5) 8-14 (18) dm high; *leaves* sheathing slightly up the stem but not at the nodes, elliptic to oblong, the leaf blade 2.5-4.5 (5.5) cm long, (1.5) 2-3.5 cm wide, densely white-tomentose below, grayish-tomentose to floccose or subglabrous and greenish above, the margins slightly crisped, the tomentose to floccose petiole (2) 4-6 (7) cm long; *flowering stems* erect, slender, 1-3 (4) dm long, lanate to tomentose; *inflorescences* cymose, strict, 3-10 (14) dm long, the branches tomentose; *bracts* scalelike, ternate, linear to triangular, mostly 1-3 (5) mm long, densely tomentose except for the very tip, connate basally; *peduncles* lacking; *involucre*s congested, 3-6 per head, turbinate, 3-4 mm long, thinly tomentose, the 5-8 erect teeth 0.5-0.7 mm long; *flowers* creamy white, 1.5-3 mm long, densely pubescent without, less so but still distinctly pubescent along the midrib within, the tepals monomorphic, oblong, the outer tepals shorter than the inner ones at maturity; *stamens* exerted, 2.5-3.5 mm long, the filaments pilose basally, the anthers 0.4-0.5 mm long, white with a reddish tinge to rose; *achenes* light brown, 3-3.5 mm long, glabrous; $n = 20$.

Specimens Examined. — UNITED STATES. CALIFORNIA: Fresno Co.: Pine Flat, 6 mi below Trimmer, Kings River, 27 Sep 1942, *Carter* 39 (UC); 0.75 mi E of road's end, Kings River Canyon, 15 Nov 1988, *Clines* 201 (CAS, FSC, MARY, RSA, US), voucher for chromosome count; Dunlap, 19 Oct 1940, *Hoover* 4691 (UC, US); Kings River Canyon, 26 May 1988, *Shevock* 11820 (CAS, FSC, MARY, RSA, UC).

Eriogonum nudum var. *regirivum* (Latin *regis*, king, and *rivus*, river, stream, for the Kings River) is a localized endemic restricted to limestone slopes within the Digger Pine-Oak Woodland community (Holland 1986) which prevails in the Kings River Canyon at lower elevations. The type collection was obtained from steep unstable slopes that support few woody species. These slopes are mostly south-facing and are characterized by loose calcium carbonate soils interspersed with marble outcrops. The most common associates are *Lupinus albus*, *Artemisia dracunculoides*, *Stephanomeria virgata* and *Eriogonum roseum*.

The var. *regirivum* may be readily distinguished from the Santa Cruz Co. endemic, var. *decurrens*, by its pubescent flowers and basally sheathing elliptic to oblong leaves. In var. *decurrens* the roundish leaves are only 1-3 cm long and are frequently found at well defined nodes. Probably the most closely related variant is the more northern var. *oblongifolium* S. Wats. which occurs in the Sierra Nevada as far south as Tuolumne Co. It has white or yellow flowers that are somewhat less pubescent than those of the new variety, and while the habit is erect in the var. *oblongifolium*, it is not as strict as that in var. *regirivum*. Further, the tomentum on the stems and branches of the new variety is dense to the point of being nearly lanate, and while the tomentum of the stems and branches of var. *oblongifolium* may be dense, it may only be floccose in some populations. Unlike the var. *oblongifolium* which flowers mainly from June to September, the var. *regirivum* does not start to flower until September and may continue well into November.

Cytologically, the new variety is a tetraploid ($n = 20$) and is therefore similar to such variants as var. *nudum*, *pauciflorum* S. Wats., *oblongifolium* and others. Only the var. *auriculatum* (Benth.) Tracy ex Jepson and its near relative, var. *indictum* (Jepson) Rev. in Munz are octoploids (Stokes & Stebbins 1955).

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